

Claims

- [c1] 1. A disc brake having an anchor fixed to a housing, said anchor having first and second rails that align first and second friction members with a rotor, said first friction member having a first friction pad that is moved into engagement with a first radial surface of a rotor and said second friction member having a second friction pad that is moved into engagement with a second radial surface on said rotor to develop first and second brake forces that are carried into said anchor to oppose the rotation of said rotor and effect a brake application, characterized in that said anchor has first and second projections that extend from said first rail and first and second projections that extend from said second rail with said first projections being located in a first plane that is aligned with said first radial surface while said second projections are located in a said second plane that is aligned with said second radial surface; and in that said first and second friction pads have an initial thickness is continually reduced by wear through the engagement with said rotor; and in that said first and second friction members each have a carrier with a first inwardly projecting lip on a first end and a second inwardly projecting lip on a sec-

ond end through which a brake force is transmitted into said anchor, said first and second inwardly projecting lips each having a length that corresponds to said initial thickness of said friction pad plus at least one half of the width of a projection such that said lips correspondingly engage said first and second projections on said first rail or said first and second projections on said second rail along first and second planes of engagement during a brake application to communicated said brake forces into said anchor without the introduction of a moment that may effect a uniform application of force between a friction pad and said rotor.

- [c2] 2. The disc brake as recited in claim 1 wherein said engagement of said first and second inwardly projecting lips with said first and second projections on said first and second rails remains as a point contact along the plane of engagement with the radial face of the rotor even with changes in the thickness of a friction pad.
- [c3] 3. The disc brake as recited in claim 2 wherein said first and second rails provide for radial retention to maintain said first and second friction pads in alignment with said first and second radial surfaces of said rotor.
- [c4] 4. The disc brake as recited in claim 3 as further characterized by a plurality of actuation pistons that engage

said first carrier member to assist in maintaining a uniform actuation force to move said first and second friction members toward said rotor.

[c5] 5. The disc brake as recited in claim 4 as further characterized by a first surface protection member attached to said anchor and matched with said first rail and a second surface protection member attached to said anchor and match with said second rail such that said first and second ends of said friction members engage said protection members to prevent wear of said rails.

[c6] 6. The disc brake as recited in claim 5 wherein said first projecting lips on the carriers of said first and second friction members engage said first projections when said rotor is rotating in a first direction and said second projecting lips on the carriers of said first and second friction members engage said second projections when said rotor is rotating in a second direction.

[c7] 7. The disc brake as recited in claim 4 wherein said uniform actuation force is applied to said carriers and as a result the creation of sound on engagement of said first and second friction pads with said rotor is substantially reduced.